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REMARKS

Regarding the status of the present application, Claim 10 has been amended to correct a grammatical error, and Claims 1-26 are pending in this application. Reconsideration of this application is respectfully requested. It is respectfully submitted that this amendment does not require further searching on the part of the Examiner. It is also respectfully submitted that this amendment places this application in condition for allowance, or in any event, in better condition for consideration on appeal.

The relevant portions of the remarks submitted with the previous response are not restated herein, but are relevant and are incorporated herein by reference. Additional comments are presented below for the Examiner's consideration.

Claims 1, 7, 19-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,643,517 issued to Steer in view of US Patent No. 6,157,834 issued to Helm et al. in further view of US Patent No. 6,718,169 issued to Martti et al.

The Examiner's position is that "Steer teaches a method for operating a mobile communication system having at least one gateway (MSC), at least one user terminal (UT) and a group of base stations comprising steps of providing a group of base stations and allowing access to the said group of base stations by specifying an exclusion zone and selectively providing service to the UT depending on a determined location of the UT relative to the exclusion zone (Column 3 lines 48-60)." The Examiner admitted that "Steer fails to specifically teach the use of a constellation of satellites which provides mobile communication services to a UT." The Examiner cited Helm et al as teaching "the use of a constellation of satellites which provides mobile communication services to a UT." The Examiner concluded that "it would have been obvious to one of ordinary skill in the art to combine the teaching of Steer with the teaching of Helm et al. of the use of a constellation of satellites which provides mobile communication services to a UT to provide mobile communications in area where terrestrial based cellular systems do not provide coverage."

As was argued in the prior response, it is respectfully submitted that the Steer patent specifically addresses safety issues relating to land-based cellular mobile phones, whereas Applicants' invention is directed to a mobile satellite communication system allowing access to the system by specifying exclusion zones as set out in claim 1. Furthermore, the Steer patent neither teaches, suggests or implies a gateway as set out in claim 1 nor, as the Examiner admits, discloses the use of a constellation of satellites or a confidence limit (CL) and the estimated error (E) as required by Claim 1.

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The Examiner stated with regard to Claim 1 that "Steer teaches a method for operating a mobile communication system having at least one gateway (MSC), ..." It is not understood what (i.e., gateway (MSC)) that the Examiner is referring to. The terms "gateway" and "MSC" are not used in the Steer patent. Contrary to the Examiner's argument, it is respectfully submitted that the Steer patent does not disclose or suggest that the system includes a gateway as that term is known in the satellite communications art. The term "gateway" is generally understood to be a computer or a network that allows or controls access to another computer or network. It is respectfully submitted that the drawing figures of the Steer patent also do not show that there is a gateway present in the system.

The Examiner admitted that "Steer and Helm et al ... do not teach a confidence limit (CL) and the estimated error (E)." However, the Examiner cited the Martti et al. patent as disclosing "the use of (b) a confidence limit and estimated error (which reads on column 1 lines 60-67 and column 2 lines 1-45)." The Examiner concluded that it would have been obvious to improve Steer by modifying the position location system with a confidence limit and estimated error as taught by Martti et al. for the purpose of setting the target value.

It is respectfully submitted that the Examiner's rejection is based upon piecemeal reconstruction of the present invention and improper hindsight reconstruction, using the teachings of the cited references in light of Applicants' own teachings. It is respectfully submitted that there is no teaching contained in the cited references that would suggest their combination. It is respectfully submitted that the reasons argued by the Examiner for combining the references are not mentioned in the cited references and are based upon conjecture and hindsight.

Claim 1 calls for

A method for operating a mobile satellite communication system having at least one gateway (GW), at least one user terminal (UT), and a constellation of satellites, comprising steps of:

- allowing access to said constellation of communication satellites by specifying an exclusion zone having a confidence limit (CL) associated therewith; and
- selectively providing service to a UT depending on a determined location of the UT relative to the exclusion zone and on an estimated error (E) of the determined UT location.

It is respectfully submitted that the Steer patent has nothing to do with a mobile satellite communication system, it only relates to communication between base stations and mobile radio units. It is respectfully submitted that the Examiner's argument that it would

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be obvious to combine the teachings of the Steer and Helm et al. patents is not based upon the express teachings of the Steer patent.

It is respectfully submitted that the Steer patent does not envision the use of its technique with a mobile satellite communication system. In the Steer system, the base station is located within or near a protected zone and transmits information specifying the geographic location of the boundaries of the protected zone. This is not the case with the present invention. In the present invention, the user terminal is located at a remote location relative to the gateway. Furthermore, the gateway is typically not located in the exclusion zone.

There is no confidence limit related to the information specifying the geographic location of the boundaries of the protected zone that is transmitted by the base station in the Steer system. Furthermore, there is no need for such a confidence limit, because the base station is located within or near a protected zone, and therefore there is basically absolute confidence that the mobile unit is within the protected zone.

Also, there is no estimated error (E) determined for the location of the mobile unit in the Steer system. Furthermore, no is required for operation of the Steer system. There is no confidence limit required to determine if the mobile radio is inside the protected region. The fact that the Examiner contends that the Martti et al. patent discloses the use of a confidence limit and estimated error is irrelevant to the fact that no such parameters are required or desired for operation of the Steer system. Furthermore, the use of a confidence limit and estimated error is not required or desired for operation of the Helm et al. system.

In addition, Applicants respectfully contend that Martti et al discloses a confidence limit for a telecommunication network element which is completely non-analogous to the system of the instant invention and neither suggests, teaches or implies its use in connection with a communication satellite system comprising the user terminal and gateway of the present invention associated with providing access to same and employing the exclusion zone on an estimated error (E) of the determined user terminal location as required in Claim 1.

It is respectfully submitted that there is no disclosure or suggestion contained in the Steer or Helm et al. patents regarding selectively providing service to a mobile unit depending on the determined location of the mobile unit relative to the exclusion zone and on the estimated error (E) of the determined location of the mobile unit.

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It is respectfully submitted that there must be some teaching contained in the cited references that would suggest combining their teachings. This is clearly not the case with regard to the references cited by the Examiner. Neither the Steer system nor the Helm et al. system requires determination of an estimated error for the location of a mobile unit in order for the systems to operate properly.

It is respectfully submitted that the Examiner's justification for combining the teachings of the Steer and Helm et al. patents that "the use of a constellation of satellites which provides mobile communication services to a UT to provide mobile communications in area where terrestrial based cellular systems do not provide coverage" is not based upon the teachings of the Steer patent. The Steer patent teaches that the base station is within or near the protected area in which the mobile phone may operate. Thus, the base station is in relatively close proximity to the mobile phone, and Steer did not specifically envision the use of the system with a satellite based communication system. Furthermore, satellite based communication system were in operation at the time that Steer developed the system, so if the teaching were intended for use on a satellite based communication system it could have certainly been discussed, along with the use of a satellite based communication system to extend the range of the disclosed mobile communication system.

It is respectfully submitted that the Examiner's justification for combining the teachings of the Steer, Helm et al. and Martti et al. patents that "modifying the a position location system with a confidence limit and estimated error as taught by Martti et at. for the purpose of setting the target value" is irrelevant to the teachings of either the Steer or Helm et al. patents, and is not required for proper operation of either system. Furthermore, it is not understood what "target value" means with regard to the teachings of the Steer or Helm et al. patents. The term "target value" is not used in either the Steer or Helm et al. patents.

Therefore, it is respectfully submitted that Claim 1 is not disclosed or suggested by the teachings of the Steer, Helm et al. and Martti et al. patents, taken singly or together, without the use of improper hindsight reconstruction. Accordingly, withdrawal of the Examiner's rejection and allowance of Claim 1 are respectfully requested.

Claims 7, 19-25 are considered allowable over the teachings of the Steer, Helm et al. and Martti et al. patents, taken singly or together, at least based upon their dependence from allowable Claim 1. Withdrawal of the Examiner's rejection and allowance of Claims 7, 19-25 are respectfully requested.

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Claims 2-6 and 8-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,643,517 issued to Steer in view of US Patent No. 6,157,834 issued to Helm et al. in view of US Patent No. 6,718,169 issued to Martti et al. and further in view of US Patent Number 6352,222 issued to Maeda et al.

The Examiner admitted that "Steer fails to specifically disclose the use of the exclusion zone comprises at least one of a polygon that defines an area, a volume, or a surface." The Maeda et al. patent is cited as disclosing "the use of a exclusion zone comprises at least one of a polygon that defines an area, a volume, or a surface (which reads on this as to form such a polygon that includes all the service areas, as disclosed in column 10 lines 37-39)."

As was argued in the prior response, it is respectfully submitted that the Maeda et al. patent is not relevant to the mobile satellite communication system of the present invention, nor does it speak to accessing a satellite system by specifying exclusion zones, nor does it teach, suggest or imply selectively providing service to a user terminal depending on a determined location of the user terminal relative to the exclusion zone and on an estimated error (E) of the determined user terminal location.

As was argued in the prior response, it is respectfully submitted that the Maeda et al. patent does nothing more than define service areas and speak to four locations over Japan where service areas are not included in a quadrangle having those locations at its corners, additional locations with their own latitude, longitude and elevation are defined so as to form "such a polygon that includes all the service areas. This polygon can be formed by plural adjoining triangles."

Furthermore, it is respectfully submitted that the Steer, Helm et al., Martti et al. and Maeda et al. patents, taken singly or together, do not disclose or suggest the invention recited in Claim 1 without the use of improper hindsight reconstruction, for the reasons argued above with regard to Claim 1. Therefore, Claims 2-6 and 8-12 are considered allowable over the teachings of the Steer, Helm et al., Martti et al. and Maeda et al. patents, taken singly or together, at least based upon their dependence from allowable Claim 1. Furthermore, it is respectfully submitted that the Examiner's rejection is based upon piecemeal reconstruction of the present invention, using the teachings of the cited references in light of Applicants' own teachings. In view of the above, withdrawal of the Examiner's rejection and allowance of Claims 2-6 and 8-12 are respectfully requested.

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Claims 13-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 6,643,517 issued to Steer in view of US Patent No. 6,157,834 issued to Helm et al., US Patent No. 6,718,169 issued to Martti et al., US Patent Number 6352,222 issued to Maeda et al. and further in view of US Patent Number 6,166,687 issued to Ishikawa et al.

For the reason argued above, it is respectfully submitted that the Examiner's rejection is based upon piecemeal reconstruction of the present invention and the use of improper hindsight reconstruction. There is absolutely no teaching contained in the cited references that would suggest their combination. This is only found in the present application.

One skilled in the art would not be led to utilize the teachings disclosed by the Helm et al., Martti et al., Maeda et al. or Ishikawa et al. references in the Steer system based upon a reading the Steer patent. This "step-wise" finding of individual recited elements recited in the pending claims in a succession of generally unrelated references amounts to hindsight reconstruction on the part of the Examiner.

Furthermore, as was argued in the prior response, it is respectfully submitted that the passage relied upon by the Examiner is devoid of any evaluation or specification of the value of E as recited in claims 13-18 and merely states "... errors in time which are attributable to instability in the position of the mobile earth station and in the accuracy of the clock mounted in the mobile earth station and errors in frequency which result from instability of the frequency oscillator mounted in each mobile earth station can be estimated at the same time." Applicants are at a loss to discern wherein the recited passage relied upon by the Examiner there is taught, suggested or implied the value of E as set out in claims 13-18.

It is respectfully submitted that the Steer, Helm et al., Martti et al., Maeda et al. and Ishikawa et al. patents, taken singly or together, do not disclose or suggest the invention recited in Claim 1 without the use of improper hindsight reconstruction, for the reasons argued above with regard to Claim 1. Therefore, Claims 13-18 are considered allowable over the teachings of the Steer, Helm et al., Martti et al. and Maeda et al. patents, taken singly or together, at least based upon their dependence from allowable Claim 1. Furthermore, it is respectfully submitted that the Examiner's rejection is based upon piecemeal reconstruction of the present invention, using the teachings of the cited references in light of Applicants' own teachings. In view of the above, withdrawal of the Examiner's rejection and allowance of Claims 13-18 are respectfully requested.


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Claim 26 was allowed by the Examiner. The finding of allowable subject matter in this application is appreciated.

Again, it is respectfully submitted that the Steer patent, taken singly or in combination with the other cited references, does not disclose or suggest a method for operating a mobile satellite communication system having at least one gateway, at least one user terminal, a constellation of satellites, wherein access is allowed to the constellation of communication satellites by specifying an exclusion zone having a confidence limit (CL) associated therewith, and service is selectively provided to a user terminal depending on a determined location of the user terminal relative to the exclusion zone and on an estimated error (E) of the determined user terminal location. The steer patent is directed to applying location techniques to protect against the use of land-based cellular phones in prohibited areas wherein operation of same could cause damage such as in hospitals or airplanes. It is respectfully submitted that Applicants Claims are completely distinguishable over the teachings of the Steer patent, taken singly or in combination with the other cited references.

In view of the above, it is respectfully submitted that all pending Claims are not obvious in view of the cited references, taken singly or together, and are therefore patentable. Accordingly, it is respectfully submitted that this application is in condition for allowance. Reconsideration and allowance of this application are earnestly solicited. It is again respectfully submitted that this amendment does not require further searching on the part of the Examiner. It is also respectfully submitted that this amendment places this application in condition for allowance, or in any event, in better condition for consideration on appeal.

Respectfully submitted,



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